



## **COURSE OBJECTIVES:**

Introducing students to:

- the review of basic operations with integers and fractions
- the concept of ratio, rate, and how it is used in real life situations
- the concept of percent and use the percent proportion to solve percent problems
- exponential expressions with basic operations using the rules for order of operations
- simple equations to solve an unknown
- rearranging formulas
- properties of parallel and transversal
- properties of a chord in a circle and tangent to a circle
- the concept of co-ordinate system, and the slope of a line using the co-ordinate system
- various graphs to display a set of data and draw an inference using graphs or central tendency

## **LEARNING OUTCOMES:**

As a result of taking this course, students will gain the ability to:

- Simplify expressions with whole numbers, decimals, integers, and fractions using the rules for order of operations
- Write a ratio to compare two quantities with same units from real life situations
- Compare unit rates using number relation symbols
- Solve real life problems using proportions
- Solve general applied percent problems such as interest, sales tax, commission, etc.
- Evaluate exponential expressions containing negative and positive exponents using the rules for order of operations
- Convert between scientific notations and standard form, and multiply and divide using scientific notation
- Solve simple linear equations with additive inverse and/or multiplication by a reciprocal
- Identify pairs of corresponding angles, interior angles, and alternate interior angles, and apply properties of transversals and parallel line to find measures of angles
- Calculate the measures of angles, chords, and/or radii using the circle properties
- Plot and construct graphs in a rectangular co-ordinate system and state the slope of a line containing points with co-ordinates
- Construct a line graph, pictograph, component graph, circle graph, histogram, and polygon using the given data
- Construct a frequency table from raw data, and display the information
- Draw an inference using the central tendency of a set of raw data

## **TRANSFERABILITY: N/A**

**EVALUATIONS:**

3 section tests (best 3 out of 4)	30 %
Midterm	25 %
Final Exam	45 %

\*\*Note: Even though 50% is a passing mark, a mark of at least 60% is recommended for success in future courses.

**GRADING CRITERIA:**

Alpha Grade	4-point Equivalent	Percentage Guidelines		Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	90-100		C+	2.3	67-69
A	4.0	85-89		C	2.0	63-66
A-	3.7	80-84		C-	1.7	60-62
B+	3.3	77-79		D+	1.3	55-59
B	3.0	73-76		D	1.0	50-54
B-	2.7	70-72		F	0.0	00-49

**COURSE SCHEDULE/TENTATIVE TIMELINE:**

See table on last page.

## STUDENT RESPONSIBILITIES:

In addition to the Student Rights and Responsibilities as set out in the Northwestern Polytechnic website, the following guidelines will maintain an effective learning environment for everyone:

- Regular attendance is expected of all students in all mathematics courses. Your success in math is directly linked to your attendance. Attendance will be taken daily.
- Students are expected to be punctual. Arrive on time for classes and remain for the duration of scheduled classes.
- Refrain from disruptive talking or socializing during class time.
- Be respectful of others regarding food or beverages in the classroom. Clean up your eating area and dispose of garbage.
- Recycle paper, bottles, and cans in the appropriate containers.
- Children are not permitted in the classrooms.
- Students are expected to notify the instructor of any extenuating circumstances.
- Students are expected to turn off cell phones during class time or in labs. No unspecified electronic devices will be allowed in exams.

## STATEMENT ON PLAGIARISM AND CHEATING:

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the Northwestern Polytechnic Calendar at <https://www.nwpolytech.ca/programs/calendar/> or the Northwestern Polytechnic Policy on Student Misconduct: Plagiarism and Cheating at <https://www.nwpolytech.ca/about/administration/policies/index.html>

\*\*Note: all Academic and Administrative policies are available on the same page.

### *How to use the book:*

1. Read the title of each chapter, table of contents page, and title of each section. You will observe a progressive growth of operations/concepts.
2. Read and thoroughly understand the concepts and terminology of a section.
3. Understand and do each example very carefully using the terminology.  
***If difficulties arise, meet with your instructor.***
4. Match each question in an exercise with the corresponding examples before the exercise. *If difficulties arise, return in your module and rework the examples.*
5. Attempt the exercise questions and check the answers before moving on to the next section.  
***If difficulties arise, meet with your instructor.***
6. Review the terminology of the module(s) before taking any test/exam.

# Ma0093 Tentative Test Schedule for Fall 2022

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Test #	% towards final grade	Topics	Recommended Test Date	Date written	Mark
1	10%	Review & Ratio and Proportion	September 22		
2	10%	Percent & Intro to Exponents	October 18		
Midterm Exam	25%	All the Above	MUST be written on or before October 25		
3	10%	Equations & Fund. Of Geometry	November 16		
4	10%	Intro to Graphing & Statistics	December 8		
Final Exam	45%	All of the Above	TBA (Dec. 13-22) 3 hour exam		

**\*\*\*All tests must be completed by December 8th.**